

# Research on the development mode of government service industry Alliance

Xiaohua Li<sup>a\*</sup>, Rengen Huang<sup>b</sup>, Maofu Mai<sup>c</sup>

School of Electronic Information Engineering, Foshan University, Foshan, 528000, China

<sup>a</sup>380125779@qq.com, <sup>b</sup>834741453@qq.com, <sup>c</sup>645517138@qq.com

**Keywords:** Government service, Industry alliance, Model

**Abstract:** How to improve the efficiency and quality of government services is an important practical topic for a city. By analysing the supply and demand of funds, technology, talent, services, and innovation in the ecosystem of government service industry, we propose a development model of government service industry alliance with product and system service providers, talent service providers, and certification service providers as the main members, supported by innovation, talent, fund, policy, and collaborative innovation service platform. This model can effectively promote the development of alliance members and related industries, as well as promote the innovative of government services.

## 1. Introduction

The government service of city which is being carried out by the Chinese government is an important deployment in the process of advancing the modernization of government governance <sup>[1]</sup>. But the construction of government service is restricted by the funds, technology and talent constraints, and needs more government service innovation in Internet environment <sup>[2]</sup>. Since government lack of relevant technology and talent, and enterprises lack of the understanding of the government service, so it is necessary to build a system to play the advantages of government and enterprises, and integrate the capital, technology, talent and policy to support the development of government service. It is that the most effective way is to construct the government service industry alliance by integrating the Industrial, Capital, Talent, Innovation and Policy

## 2. Ecological analysis of Government Service Industry

### 2.1 Government Service Industry Chain

Government service industry chain is a supply and demand chain to provide the public services adapting to the Internet environment, including all aspects the link of demand, construction, public services providing and maintenance. The main links of demand chain include: demand, planning, modelling, engineering construction, application, evaluation. The main suppliers of the supply chain include: product and service providers, integrated suppliers, industry policy guidance agencies, industry certification bodies.

### 2.2 Government Service Industry Ecosystem

The analysis of current needs and supply chains shows that: First, the information asymmetry between supply and demand. Second, the market is dominated by the technology and products. Third, high-end services and complex talents are scarce. Based on the above analysis, it is necessary to develop the ecological system of the government service industry as shown in figure 1.

In the government service industry ecosystem, sharing and benefits distribution can be realized through the collaborative innovation service platform. The product and technology providers include hardware and software technology and product production and supply enterprises or institutions <sup>[5]</sup>. System service providers include the enterprises or institutions providing the services of system development, system integration, system operation and maintenance, intermediary. Scientific research and talent supply service members are responsible for the special research,

project demonstration, theory and model evaluation, high-end consulting, training and high-end talent service etc. [6]. Evaluation and certification service providers provide supervision, rating and project certification according to the relevant standards. The support service establishes and implements the alliance agreement through the Policy Chain, maintains the collaborative innovation service platform, and seeks external support and the introduction of new resources [3, 4].

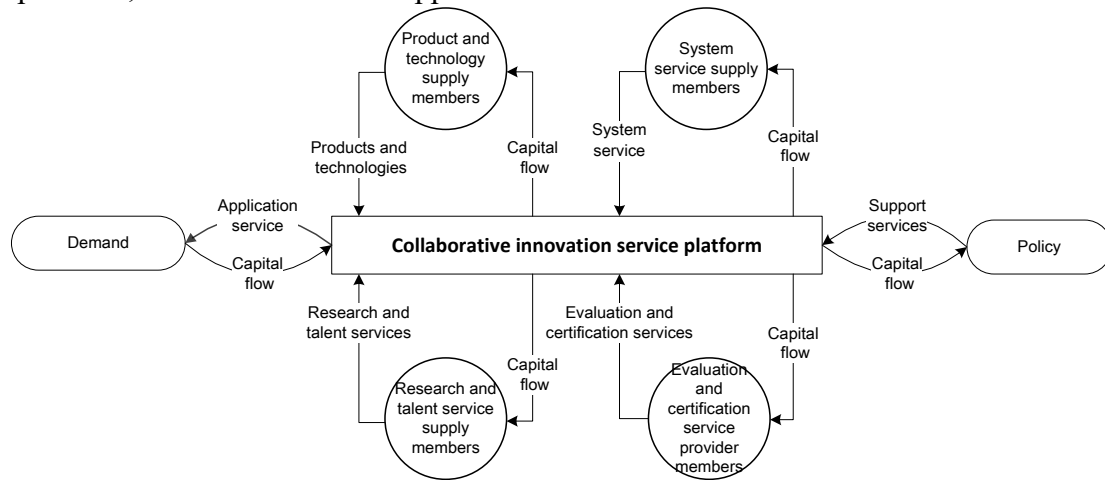


Fig.1 Government service industry ecosystem

### 3. Development model of government service industry alliance

Based on the above analysis, we propose the development of government service industry ecosystem.

#### 3.1 Collaborative Innovation

The unified scheduling and integration of heterogeneous system business process data in the Internet environment, as well as the big data service technology framework for public experience and government decision support, are the two main technical bottlenecks that constrain the development of government services [7].

Based on the above analysis, an alliance innovation model should be constructed to break through the technological constraints of industrial development. Relying on the support of the alliance to obtain various funds, and with the support of the collaborative innovation service platform, the members of the organization leverage their academic, technological, financial, talent, and other advantages to form industry university research collaborative innovation and develop products with intellectual property rights and mature technology.

#### 3.2 Talent Sharing Model

In aspects of the alliance, such as service supply, collaborative innovation, achievement transformation, platform operation, and support services, the core element is the sharing of talents. Therefore, talents are the key factor restricting the development of the alliance. At the same time, the supply and demand docking of the government service industry requires talents who understand both technology and service processes. Therefore, talent is one of the key factors affecting government demand and project construction quality.

Based on the above analysis, it is necessary to rely on the alliance's collaborative innovation service platform to gather talents from alliance members, provide talent services to alliance members in an open and shared mode, and carry out innovation achievement incubation.

#### 3.3 Financing Mode

First, the government service industry is driven by government demand, and the coming years will be the peak period for governments at all levels to build government services. The second is that the alliance gathers the most influential state-owned enterprises, private enterprises, universities,

and research institutions in the region, providing complete and powerful supply to meet the needs of government service construction. Thirdly, based on high government credibility, government service construction projects have strong social capital absorption capabilities. Finally, the digital economy has become an important driving force for the innovative development of China's economy and society, and related industries have received strong support from governments at all levels.

Based on the above analysis, an alliance financing mode can be constructed. Through alliance support services, we support the production, collaborative innovation, and talent services of alliance industries from government investment, alliance member investment, government financing, social capital, and government support funds.

### **3.4 Policy Support Mode**

Based on the organizational structure, operation mechanism, guarantee mechanism, capital investment channels and management measures, the alliance seeking policy support mode is constructed. Within the alliance, the alliance policy provides support services for member enterprises through the alliance collaborative innovation service platform. Outside the alliance, the alliance seeks policy support in terms of technological innovation, platform construction, talent introduction, and financing.

## **4. Conclusion**

The development model of government service industry alliance proposed in this paper is supported by the collaborative innovation service platform, and organically integrates funds, talents and policies to realize the docking of industry and demand, the integration of financing channels, talent sharing, technological innovation and achievement transformation. The establishment of the development mode of government service industry alliance firstly is to exploit the joint advantages to open up the new product market; Secondly, mechanisms such as collaborative research and development, collaborative investment, technology and information sharing have effectively improved the innovation ability of alliance members [8]. Third, alliance members jointly build research and development infrastructure, which can effectively reduce the cost of products. Finally, it can promote the establishment of regional industry-university-research cooperation; strengthen regional innovation network, joint regional innovation resources and other industry-related innovation.

## **References**

- [1] Information on [http://www.gov.cn/zhengce/2016-11/14/content\\_5132240.htm](http://www.gov.cn/zhengce/2016-11/14/content_5132240.htm).
- [2] Information on [http://news.xinhuanet.com/local/2016-04/05/c\\_128862722.htm](http://news.xinhuanet.com/local/2016-04/05/c_128862722.htm).
- [3] Xiaohua Li, Zhen Zhu, Weigang Guo. Research on regional Internet + government service industry alliance based on ecosystem.2017 2nd International conference on applied mathematics, simulation and modeling, august 6-7 2017,page 349-354.
- [4] Weigang Guo, Jianqin Xie, Zhen Zhu, Qiuming Lin, Xiaohua Li. Analysis and research on the Development and Application of Big Data in Foshan. *Advances in Computer Science Research*, vol. 82, No.4:538-542.
- [5] Jian Wu, John Callahan. Motive, form and function of international R&D alliances: Evidence from the Chinese IT industry. *The Journal of High Technology Management Research*, Vol. 16, Issue 2, December 2005, Pages 173-191.
- [6] A Oke, DI Prajogo, J Jayaram, Strengthening the Innovation Chain: The Role of Internal Innovation Climate and Strategic Relationships with Supply Chain Partners, *Journal of Supply Chain Management*, 2013, 49 (4):43-58.

[7] Yu Pan, Shuxing Lu, Fang Pan, Production and Research Cooperative Innovation Network Ecosystem Architecture under Big Data Environment, Science & Technology Progress and Policy.Vol.31 No.08:1-4, Apr. 2014.

[8] Jianwei Tan, Peiyun Feng, Xiaoyan Liao, Ecosystem of the Industrial Technology Innovation Strategic Alliance from the Perspective of Food Chain Dynamics, Journal of Chongqing University of Posts and Telecommunications (Social Science Edition). Vol. 26, No.1:117-123, Jan. 2014.